Express Mail Label No.: EV 392155865 US Date of Deposit: June 29, 2004

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Attorney Docket No.: 2402



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Peled, et al.

SERIAL NUMBER:

10/774,843

**EXAMINER:** 

Not Yet Assigned

FILING DATE:

February 9, 2004

**ART UNIT:** 

1645

For:

**EXPANSION OF RENEWABLE STEM CELL POPULATIONS** 

## Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

#### TRANSMITTAL LETTER

Transmitted herewith for filing in the present application are the following documents:

- 1. Information Disclosure Statement (2 pages), in duplicate;
- Modified Form 1449/PTO (4 pages), in duplicate; 2.
- 3. Copies of Cited References: A1-9; B1-5; C1-103; and
- Return Postcard. 4.

If the enclosed papers are considered incomplete, the Mail Room and/or the Application Branch is respectfully requested to contact the undersigned at (617) 542-6000, Boston, Massachusetts.

The Commissioner is authorized to charge any fees that may be due, or to credit any overpayment, to the undersigned's account, Deposit Account No. 50-0311 Ref. No. 24024-505. A duplicate copy of this transmittal letter is enclosed herewith.

Respectfully submitted,

Ivor R. Elrifi, Reg. No. 39,529

Attorney(s) for Applicants

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY and POPEO, P.C.

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Date: June 29, 2004

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#### INFORMATION DISCLOSURE STATEMENT

Pursuant to the duty of disclosure under 37 C.F.R. §§1.56, 1.97 and 1.98, Applicants hereby make of record the documents listed on the attached modified Form PTO-1449, as well as copies of the listed documents.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action based on the merits in the above-identified case. Accordingly, no fee or certification is believed required.

It is respectfully requested that the Examiner consider completely the cited information, along with any other information, in reaching a determination concerning the patentability of the present claims, and sign the enclosed form PTO-1449 to evidence that the cited information has been fully considered by the Patent and Trademark Office during the examination of this application.

By submitting this Information Disclosure Statement, the Applicants make no representation that: (1) a search has been performed, of the extent of any search performed, or that more relevant information does not exist; (2) the information cited in the Statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56(b); and (3) the information cited in the Statement is, or is considered to be, in fact, prior art as defined by 35 U.S.C. §102.

APPLICANT:

Peled, et al.

U.S.S.N.:

10/774,843

Notwithstanding any statements by the Applicants, the Examiner is urged to form his/her own conclusion regarding the relevance of the cited information. An early and favorable action is hereby requested.

Please charge any fees that may be due, or credit any overpayment of same, to Deposit Account No. 50-0311, Reference No. 24024-505.

Respectfully submitted,

4:

Ivor R. Elrifi, Reg. No. 39,529

Attorney(s) for Applicants

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Page 1 of 4 Attorney Docket No.: 24024-505

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| Modified Form 1449/PTO            |   |  |  |  |                  | Application Number  | 10/774,843                      |                  |  |                             |  |
|-----------------------------------|---|--|--|--|------------------|---|---------------------------------|------------------|--|-----------------------------|--|
|                                   | INFORMATION DISCLOSURE STATEMENT BY APPLICANT                                       |  |  |  |                  | Filing Date   | February 9, 2004                |                  |  |                             |  |
|                                   |   |  |  |  |                  | First Named Inventor                                      | Peled                           |                  |  |                             |  |
|                                   |   |  |  |  |                  | Group Art Unit  | 1645                            | 1645             |  |                             |  |
|                                   |   |  |  |  |                  | Examiner Name   | Not Yet                         | Not Yet Assigned |  |                             |  |
| (use as many sheets as necessary) |   |  |  | cessary)   |                  | Attorney Docket Number                                    | 24024-5                         | 24024-505        |  |                             |  |
|                                   |   |  |  |  | U.S              | S. PATENT DOCUMENTS                                       |                                 |                  |  |                             |  |
| Exam<br>Initials                  | Cite<br>No.   |  |  | Issue Date                                       |                  | me of Patentee(s) or Applicant(s)                         | Class                           | Sub<br>Class     | Filing I                                     | Date<br>opriate             |  |
|                                   | A1  | 1 4,642,120                              |  | 02/10/87   | Ne               | Nevo, et al.  |                                 | 16               |  |                             |  |
|                                   | A2  | 5,486,                                   | 359  | 01/23/96   | Ca               | plan, et al.  | 424                             | 93.7             |  |                             |  |
|                                   | A3  | 5,654,                                   | 186  | 08/05/97   | Ce               | erami, et al.   | 435                             | 325              |  |                             |  |
|                                   | A4  | 5,716,411 02/10/98<br>5,716,616 02/10/98 |  | Or   | gill et al.      | 623   | 15                              |                  |  |                             |  |
|                                   | A5  |  |  | Pr   | ockop, et al.    | 424   | 93.7                            |                  |  |                             |  |
|                                   | A6  | 5,736,                                   | 396  | 04/07/98   | Br               | uder, et al.  | 435                             | 366              |  |                             |  |
|                                   | A7  | 5,830,                                   | 760  | 11/03/98   |                  | ai, et al.  | 435                             | 377              | <u> </u>                                     |                             |  |
|                                   | 0'4-  | 1 110                                    | Darbita band   |  |                  | SHED APPLICATION DOCUMENTS                                | Class                           | Sub              |  | na Data                     |  |
| Exam<br>Initials                  | No.   |  | Published cation No.   | Publishe<br>Date                                 | o Na             | me of Patentee(s) or Applicant(s)                         | Ciass                           | Class            |  | ing Date<br>If<br>propriate |  |
|                                   | A8  | 2002/0                                   | )114784 A1   | 08/22/02   | Li,              | et al.  | 424                             | 93.2             |  |                             |  |
|                                   | A9  | 2002/0                                   | )159981 A1   | 10/31/02   | 2 Pe             | eled, et al.  | 424                             | 93.7             |  |                             |  |
|                                   |   |  |  |  | FORE             | IGN PATENT DOCUMENTS                                      |                                 |                  |  |                             |  |
| Exam<br>Initials                  | Cite<br>No.   | Foreign Patent Do<br>Office Number       |  |  |                  | of Patentee(s) or Applicant(s)                            | Date of Tran<br>Publication Yes |                  | slation<br>No                                |                             |  |
|                                   | B1  | WO 97/31647                              |  | IMCI   |                  | ONE SYSTEMS INCORPORATED                                  | 09/04/1997                      |                  |  | <u> </u>                    |  |
|                                   | B2  | wo                                       | 97/33978   |  | LIFE.            | TECHNOLOGIES, INC   | 09/18/19                        | 97               | <u>                                     </u> |                             |  |
|                                   | В3  | wo                                       | 98/25634   | 4  | SER              | ASIT MEDICAL RESEARCH<br>VICES & DEVELOPMENT<br>PANY LTD. | 06/18/98                        |                  |  |                             |  |
|                                   | B4  | wo                                       | 99/40783   | 3  | GAM              | IDA CELL LTD.   |                                 |                  |  |                             |  |
|                                   | B5  | wo                                       | 00/1888  | 5  | GAM              | AMIDA CELL LTD. 04/06/00                                  |                                 | 0                |  |                             |  |
|                                   |   |  | 01   | THER PRIO  | R ART -          | NON PATENT LITERATURE DOCUM                               | ENTS                            |                  |  |                             |  |
| Exam<br>Initials                  | m Cite Name of Author Title (when appropriate) Bublication Volume Page(s) Date Etc. |  |  |  |                  |   |                                 |                  |  |                             |  |
|                                   | C1  | C1 Alter, B. P., Ex                      |  | oer.I Hemato                                     | d., 7(5):        | 200-209 (1979).   |                                 |                  |  |                             |  |
|                                   | C2  | Ває                                      | e, et al., <i>J</i> . N  | lurt. Biochem., 5:457-461 (1994).                |                  |   |                                 |                  |  |                             |  |
|                                   | СЗ  |  | Bae, et al., J. Nutr., 123(6):997-1002 (1993).                           |  |                  |   |                                 |                  |  |                             |  |
|                                   | C4 Baum, et al., P  |  | roc. Natl. Acad. Sci. USA, 89:2804-2808 (1992).                          |  |                  |   |                                 |                  |  |                             |  |
|                                   |   |  | <u> </u>   |  | 099-1104 (1995). |   |                                 |                  |  |                             |  |
|                                   | C6 Bhatia, et al., F  |  |  | Proc. Natl. Acad. Sci. USA, 94:5320-5325 (1997). |                  |   |                                 |                  |  |                             |  |
|                                   | C7  | Bla                                      | u, et al., <i>Blo</i>  | ood, 81(1): 227-233 (1993).                      |                  |   |                                 |                  |  |                             |  |
|                                   | l   |  | I., J. Lab. Clin. Med., 95(4):575-580 (1980).                            |  |                  |   |                                 |                  |  |                             |  |
|                                   | <del> </del>  |  |  | on, et al., Science, 290:1775-1779 (2000).       |                  |   |                                 |                  |  |                             |  |
|                                   | C10 Breitr  |  | man, et al., <i>Proc. Natl. Acad. Sci. USA</i> , 77(5):2936-2940 (1980). |  |                  |   |                                 |                  |  |                             |  |

Express Mail Label: EV 392155865 US

Date of Deposit: June 29, 2004

Brugger, et al., N. Engl. J. Med., 333(5):283-287 (1995). C11 Cable, et al., Hepatol., 26(6):1444-1457 (1997). C12 C13 Caliaro, et al., Int. J. Cancer, 56:743-748 (1994). ChemMaster Safety Data Sheet, pp 1-4 (1999). C14 C15 Cicuttini, et al., Blood, 80(1):102-112 (1992). C16 Cote, et al., Blood, 100(7):2586-2596 (2002). C17 De Bruyn, et al., Stem Cells, 13:281-288 (1995). C18 Douer, et al., Leukemia, 14(5):874-881 (2000). C19 Drayson, et al., Exp. Cell Res., 266(1):126-134 (2001). C20 Dubois, et al., J. Pediatr. Gastroenterol. Nutr., 10:77-81 (1990). C21 Duncan, et al., Mol. Med. Today, 3(12):554-561 (1997). C22 Eipers, et al., Blood, 86(10):3754-3762 (1995). C23 Emerson, S. G., Blood, 87(8):3082-3088 (1996). C24 Ferbeyre, G., Leukemia, 16:1918-1926 (2002). C25 Fisch, et al., Eur. J. Immunol., 26:595-600 (1996). C26 Freedman, et al., Nat. Med., 2(1):46-51 (1996). Freshney, R. I., "Culture of Animal Cell, A Manual of Basic Technique", John Wiley & Sons, Third Edition, pp 309-C27 311 and 327-328. Grenda, et al., Blood, 100(9):3221-3228 (2002). C28 C29 Heslop, et al., Nat. Med., 2(5):551-555 (1996). Hino, et al., Biochem. Biophys. Res. Commun., 256(1):184-191 (1999). C30 C31 Hirase, et al., Ascta Haematol., 87(4):195-197 (1992). C32 Hottinger et al., Eur. J. Neurosci., 9:1548-1551 (1997). Kapil, et al., Blood, 89(10):3607-3614 (1997). C33 Kawa, et al., Pigment Cell Res., 13(suppl. 8):73-80 (2000). C34 C35 Kohroki, et al., Leukemia Res., 22(5):405-412 (1998). C36 Koller, et al., Blood, 82(2):378-384 (1993). C37 Krause, et al., Cell, 105:369-377 (2001). Labrecque, et al., Blood, 92(2):607-615 (1998). **C38** Lagasse, et al., Nat. Med., 6(11):1229-1234 (2000). C39 C40 Lange, et al., Leukemia, 10(6):943-945 (1996). Lassila, et al., Cell. Immunol., 122(2):319-328 (1989). C41 Lau, et al., J. Biol. Chem., 249(18):5878-5884 (1974). C42 C43 Lebkowski, et al., Blood Cells, 20:404-410 (1994). Leslie, et al., Blood, 92(12):4798-4807 (1998). C44 Madlambayan, et al., J. Hematother. Stem Cell Res., 10:481-492 (2001). C45 Mezey, et al., Science, 290:1779-1782 (2000). C46 C47 Miller, et al., Proc. Natl. Acad. Sci. USA, 94:13648-13653 (1997). Moore, et al., Blood Cells, 20:468-481 (1994). C48 C49 Morimoto, et al., Biochem. Int., 28(2):313-321 (1992). C50 Morosetti, et al., Blood, 87(10):4399-4403 (1996). C51 Morrison, et al., Immunity, 1:661-673 (1994). C52 Morrison, et al., Development, 124:1929-1939 (1997). C53 Mueller, et al., Blood, 100(3):998-1007 (2002). C54 Munshi, et al., J. Biol. Chem., 277(51):49453-49458 (2002).

Page 2 of 4

Attorney Docket No.: 24024-505

Express Mail Label: EV 392155865 US Date of Deposit: June 29, 2004

| <u> </u> |    | <u> </u>   |  |  |  |  |  |
|----------|----|--|--|--|--|--|--|
| C5       | 55 | Muramatsu, et al., Biochem. Biophys. Res. Commun., 285(4):891-896 (2001).  |  |  |  |  |  |
| C5       | 56 | Murray, et al., Clin. Exp. Immunol., 53:744-749 (1983).  |  |  |  |  |  |
| C5       | 57 | Osawa, et al., Science, 273:242-245 (1996).  |  |  |  |  |  |
| C5       | 58 | Palmiter, R. D., Proc. Natl. Acad. Sci. USA, 91(4):1219-1223 (1994).   |  |  |  |  |  |
| C5       | 59 | Peled, et al., Brit. J. Hematol., 116:655-661 (2002).  |  |  |  |  |  |
|          | 60 | Peled, et al., Blood, Abstract #2551 only, 40 <sup>th</sup> Annual Meeting of American Society of Hematology, Miami, FL, |  |  |  |  |  |
| C        | 50 | 92(10 Suppl. 1 part 1-2):618A-619A (1998).   |  |  |  |  |  |
| Ce       | 61 | Percival, S. S., Am. J. Clin. Nutr., 67(suppl):1064S-1068S (1998).   |  |  |  |  |  |
| Ce       | 62 | Percival, S. S., Nutr. Rev., 53(3):59-66 (1995).   |  |  |  |  |  |
| Ce       | 63 | Percival, et al., J. Nutr., 122(12):2424-2429 (1992).  |  |  |  |  |  |
| C6       | 64 | Perrotti, et al., Mol. Cell. Biol., 15(11):6075-6087 (1995).   |  |  |  |  |  |
| C6       | 65 | Petersen, et al., Science, 284:1168-1170 (1999).   |  |  |  |  |  |
| C6       | 66 | Petti, et al., Blood, 100(3):1065-1067 (2002).   |  |  |  |  |  |
| C6       | 67 | Petzer, et al., J. Exp. Med., 183:2551-2558 (1996).  |  |  |  |  |  |
| C6       | 58 | Piacibello, et al., <i>Blood</i> , 89(8):2644-2653 (1997).   |  |  |  |  |  |
| C6       | 59 | Podesta, et al., FASEB J., 14:680-690 (2000).  |  |  |  |  |  |
| C7       | 70 | Podesta, et al., FASEB J., 17:310-312 (2003).  |  |  |  |  |  |
| C7       | 71 | Protti, et al., Cancer Res., 56:1210-1213 (1996).  |  |  |  |  |  |
| C7       | 72 | Puccetti, et al., Cancer Res., 62:7050-7058 (2002).  |  |  |  |  |  |
| C7       | 73 | Punzel, et al., Leukemia, 13(1):92-97 (1999).  |  |  |  |  |  |
| C7       | 74 | Purton, et al., <i>Blood</i> , 94(2):483-495 (1999).   |  |  |  |  |  |
| C7       | 75 | Purton, et al., <i>Blood</i> , 95(2):470-477 (2000).   |  |  |  |  |  |
| C7       | 76 | Rosenberg, et al., J. Nat. Cancer Inst., 85(8):622-632 (1993).   |  |  |  |  |  |
| C7       | 77 | Ross, et al., Analytical Chem., 41(13):1900-1902 (1969).   |  |  |  |  |  |
| C7       | 78 | Sandstrom, et al., <i>Blood</i> , 86(3):958-970 (1995).  |  |  |  |  |  |
| C7       | 79 | Schechter, et al., Mol. Basis Blood Dis., 179-218 (1987).  |  |  |  |  |  |
| C8       | 30 | Shimizu, et al., Pediatr Int., 41:419-422 (1999).  |  |  |  |  |  |
| C8       | 31 | Sieff, et al., Blood, 60(3):703-713 (1982).  |  |  |  |  |  |
| C8       | 32 | Siena, et al., Exper. Hematol., 23:1463-1471 (1995).   |  |  |  |  |  |
| C8       | 33 | Sigurdsson, et al., J. Biol. Chem., 278(47):46199-46202 (2003).  |  |  |  |  |  |
| C8       | 34 | Simon, et al., Am. J. Hematol., 28(3):181-183 (1988).  |  |  |  |  |  |
| C8       |    | Sprangrude, et al., Science, 241:58-62 (1988).   |  |  |  |  |  |
| C8       | 36 | Suda, et al., No To Hattatsu, English Abstract Only, 25(5):429-434 (1993).   |  |  |  |  |  |
| C8       | 37 | Tashiro-Itoh, et al., <i>Liver</i> , 17(6):300-306 (1997).   |  |  |  |  |  |
| C8       | 38 | Tateno, et al., Am. J. Pathol., 148(2):383-392 (1996).   |  |  |  |  |  |
| C8       | 39 | Tetraethylene Pentamine DOD Hazardous Material Information; 6810-00F017710 (1991).                                       |  |  |  |  |  |
| C9       |    | TheMerk Index, Merc & Co., Inc., USA, Tenth Edition, p. 3742 (1983).   |  |  |  |  |  |
| C9       | 91 | Thiotepa Product Identification Sheet; THIOTEPA; EM Science, 6505-01-047-3872 (1990).                                    |  |  |  |  |  |
| C9       | 92 | Trientine (Systemic), MEDLINEplus Drug Information.  |  |  |  |  |  |
| C9       | 93 | Triethylenetetramine Product Identification Sheet; TETA, TX1235; EM Science, 6810-00N052879 (1991).                      |  |  |  |  |  |
| C9       | 94 | Ueno, et al., Leukemia Res., 22(6):517-525 (1998).   |  |  |  |  |  |
| C9       |    | Van Epps, et al., <i>Blood Cells.</i> , 20:411-423 (1994).   |  |  |  |  |  |
| C9       |    | Vilensky et al., Ann. Emerg. Med., 41:378-383 (2003).  |  |  |  |  |  |
| C9       | _  | Wasa, et al., J. Parente. Enteral Nutr., 18(3):190-192 (1994).   |  |  |  |  |  |
| C9       |    | Weissmann, I. L., Science, 287:1442-1446 (2000).   |  |  |  |  |  |
|          | 1  |  |  |  |  |  |  |

Page 3 of 4 Attorney Docket No.: 24024-505 Express Mail Label: EV 392155865 US

Page 4 of 4 Attorney Docket No.: 24024-505 Date of Deposit: June 29, 2004

| C99  | Wick, et al., ALTEX, English Abstract only, 14(2):51-56 (1997). |
|------|---|
| C100 | Williams, et al., <i>Blood</i> , 87(5):1687-1691 (1996).        |
| C101 | Zidar, et al., Am. J. Hematol., 3:177-185 (1977).               |
| C102 | Zimmerman, et al., J. Hematother., 5:247-253 (1996).            |
| C103 | Zon, L., Blood, 86(8):2876-2891 (1995).                         |

| A copy of this reference is not provided as it was previously cited by or submitted to the office in a prior application, Serial No, filed, and relied upon for an earlier filing date under 35 U.S.C. §120 (continuation, continuation-in-part, and divisional applications). |  |  |                    |  |  |  |  |
|--|--|--|--------------------|--|--|--|--|
| Examiner<br>Signature  |  |  | Date<br>Considered |  |  |  |  |

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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